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### NOTICE OF ALLOWANCE AND FEE(S) DUE

23413

7590

06/19/2009

CANTOR COLBURN, LLP 20 Church Street 22nd Floor Hartford, CT 06103 EXAMINER

THOMPSON, CAMIE S

ART UNIT PAPER NUMBER

1794

DATE MAILED: 06/19/2009

APPLICATION NO.	PLICATION NO. FILING DATE FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,025	11/20/2003	Tomohiro Oshiyama	KOT0085US	8793

TITLE OF INVENTION: ORGANIC ELECTROLUMINESCENT ELEMENT, AND DISPLAY AND ILLUMINATOR

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	09/21/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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### Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

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or <u>Fax</u> (571)-273-2885

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appropriate. All further indicated unless correct maintenance fee notifica	ed below or directed oth	ng the Patent, advance of herwise in Block 1, by (a	rders and notification a) specifying a new c	of n orres	naintenance fees w pondence address;	ill be and/or	mailed to the current (b) indicating a sepa	corres rate "l	spondence address as FEE ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)  23413 7590 06/19/2009				Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, much ave its own certificate of mailing or transmission.					other accompanying
23413 CANTOR COI 20 Church Stree 22nd Floor	V2009		Certificate of Mailing or Transmission  I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.						
Hartford, CT 06	5103								(Depositor's name)
									(Signature)
									(Date)
APPLICATION NO.	APPLICATION NO. FILING DATE		FIRST NAMED INVEN		NTOR		ATTORNEY DOCKET NO.		NFIRMATION NO.
10/718,025 TITLE OF INVENTION	11/20/2003 N: ORGANIC ELECTRO	LUMINESCENT ELEM	Tomohiro Oshiyan ENT, AND DISPLAY		D ILLUMINATOI	₹	KOT0085US		8793
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE D	OUE	PREV. PAID ISSUI	E FEE	TOTAL FEE(S) DUE	Т	DATE DUE
nonprovisional	NO	\$1510	\$300		\$0		\$1810		09/21/2009
EXAM	INER	ART UNIT	CLASS-SUBCLASS	3					
THOMPSON, CAMIE S 1794			428-690000						
"Fee Address" ind PTO/SB/47; Rev 03-(Number is required.  3. ASSIGNEE NAME A PLEASE NOTE: Un	A TO BE PRINTED ON	registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.  ON THE PATENT (print or type)  nee data will appear on the patent. If an assignee is identified below, the document has been filed for							
(A) NAME OF ASSIC	riate assignee category or	categories (will not be pa	(B) RESIDENCE: (Continued on the patent):  b. Payment of Fee(s): (Continued on the patent):  A check is enclosed.	(Plea	Individual 🖵 Co	orporati	on or other private gro		•
Publication Fee (No small entity discount permitted)  Advance Order - # of Copies			Payment by credit card. Form PTO-2038 is attached.  The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).						
5. Change in Entity Sta  a. Applicant claim	itus (from status indicated in SMALL ENTITY state		☐ b. Applicant is no	o lons	ger claiming SMAI	L EN	ГІТҮ status. See 37 CI	FR 1.2	7(g)(2).
		uired) will not be accepte tes Patent and Trademark	* *	•					
interest as shown by the	records of the Office Sta	ues i atent and frademark	Come.						_
Authorized Signature			Date						
Typed or printed name			Registration No						
an application Confiden	tiality is governed by 35 d application form to the ions for reducing this bu. Jirginia 22313-1450. DC	CFR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR	1.14 This collection i	e eet	imated to take 12 r	ninuted	to complete includin	o oath	ering preparing and

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10/718,025	11/20/2003	Tomohiro Oshiyama	KOT0085US	8793		
23413 75	23413 7590 06/19/2009			EXAMINER		
CANTOR COLE	SURN, LLP	THOMPSON, CAMIE S				
20 Church Street			ART UNIT	PAPER NUMBER		
22nd Floor Hartford, CT 0610	3		1794 DATE MAILED: 06/19/200	9		

### Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 278 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 278 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)
	10/718,025	OSHIYAMA ET AL.
Notice of Allowability	Examiner	Art Unit
	Camie S. Thompson	1794
The MAILING DATE of this communication appear All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIP of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in or other appropriate commu IGHTS. This application is s and MPEP 1308.	this application. If not included inication will be mailed in due course. <b>THIS</b>
2. ☑ The allowed claim(s) is/are <u>1-35 and 43-51</u> .		
<ul> <li>3. Acknowledgment is made of a claim for foreign priority ur</li> <li>a) All b) Some* c) None of the:</li> <li>1. Certified copies of the priority documents have</li> <li>2. Certified copies of the priority documents have</li> <li>3. Copies of the certified copies of the priority documents have</li> <li>International Bureau (PCT Rule 17.2(a)).</li> </ul>	been received. been received in Applicatio	n No
* Certified copies not received:		
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  4.   A SUBSTITUTE OATH OR DECLARATION must be subm	IENT of this application.	
INFORMAL PATENT APPLICATION (PTO-152) which give	es reason(s) why the oath or	declaration is deficient.
5. CORRECTED DRAWINGS ( as "replacement sheets") mus		
(a) including changes required by the Notice of Draftspers	•	v ( PTO-948) attached
1)  hereto or 2)  to Paper No./Mail Date		
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date		
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t		
6. DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT		
Attachment(s)	E   Notice of le	Tamasal Datant Amuliastian
<ol> <li>Notice of References Cited (PTO-892)</li> <li>Dotice of Draftperson's Patent Drawing Review (PTO-948)</li> </ol>		formal Patent Application ummary (PTO-413),
<ol> <li>Information Disclosure Statements (PTO/SB/08),</li> </ol>	Paper No./	Mail Date Amendment/Comment
Paper No./Mail Date	_	
<ol> <li>Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> </ol>	8. ⊠ Examiner's 9. □ Other	Statement of Reasons for Allowance

### **REASONS FOR ALLOWANCE**

1. The following is an examiner's statement of reasons for allowance: Applicant claims an organic electroluminescent element comprising an anode and cathode and a component layer provided between the anode and cathode wherein the component layer includes a light emission layer and the component layer contains a compound represented by

$$X_1$$
- $(A_1)_n$  or  $X_2$ - $(A_2)_m$ 

with  $X_1$  being represented by formulae (d), (e), (f), (h), (i), (j) or (k) and  $X_2$  being represented by formulae (l), (m) or (o) as defined by the present claims.

2. Applicant also claims an organic electroluminescent element comprising an anode and cathode and a component layer provided between the anode and cathode wherein the component layer includes a light emission layer and the component layer contains a compound represented by formulae A, H2, H3, H4, I1, I2, I3, J1 or J2

Formula H2

$$(R_{15})_{ms}$$

$$(R_{15})_{ms}$$

$$(R_{15})_{ms}$$

$$(R_{15})_{ms}$$

$$(R_{15})_{ms}$$

$$(R_{15})_{ms}$$

$$(R_{15})_{ms}$$

$$(R_{15})_{ms}$$

$$(R_{15})_{ms}$$

$$(R_{19})_{mn} \\ N - Ar_{20} \\ R_{20} \\ R_{20} \\ (R_{19})_{mn} \\ (R_{20})_{mn}$$

## [**6066**] Formula **12**

$$(R_{22})_2$$

$$(R_{22})_3$$

$$(R_{22})_4$$

$$(R_{22})_4$$

$$(R_{22})_5$$

# [0067] Formula I3

$$(R_{30})_{ij} = \begin{pmatrix} R_{013} & R_{014} & \\ & & & \\ R_{214} & & \\ & & \\ & & & \\ & & & \\ & & \\ & & & \\ &$$

$$(R_{39})_{i}$$

$$R_{j1}$$

$$R_{j2}$$

$$R_{j3}$$

$$R_{j4}$$

$$R_{j5}$$

$$R_{j6}$$

$$R_{j7}$$

$$R_{j6}$$

$$R_{j7}$$

$$R_{j8}$$

$$(R_{395})_{i}$$

$$(R_{37})_{ik} = (R_{3})_{ik} = (R_{3})_{ik}$$

$$(R_{39})_{ik} = (R_{3})_{ik}$$

$$(R_{39})_{ik} = (R_{3})_{ik}$$

3. The closest prior art, Sato et al., U.S. Patent Number 6,893,743, teaches an organic electroluminescent device comprising an anode and a cathode with a light emission layer formed between the anode and cathode wherein the light emission layer comprises a host material represented by

wherein  $Z_1$  is represented by a direct bond, an oxygen atom, a sulfur atom, a divalent aromatic hydrocarbon, an aromatic heterocyclic group which may have a substituent or any one of the following

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. Sato fails to teach instant formula 1 when  $X_1$  is formula (d), (e), (f), (g), (h), (i) or (j) as defined by the present claims. Sato fails to teach instant formula 3 when X is formula (l), (m), or (o) as defined by the present claims. Sato fails to teach or suggest an organic electroluminescent element with the component layer comprising a compound represented by formulae A, H2, H3, H4, I1, I2, I3, J1 or J2 as defined by the present claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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#### **CONCLUSION**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Camie S. Thompson whose telephone number is 571-272-1530. The examiner can normally be reached on Monday-Friday 8:00 am - 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/ Supervisory Patent Examiner, Art Unit 1794 Camie S Thompson Examiner Art Unit 1794